DOCUMENT RESUME

ED 327 870 CS 212 639

AUTHOR Zacharias, Martha E.
TITLE The Relationship between Journal Writing in Education and Thinking Processes: What Educators Say about It.
PUB DATE Dec 90
NOTE 31p.
PUB TYPE Information Analyses (070)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Cognitive Processes; Elementary Secondary Education; Higher Education; *Journal Writing; Literature Reviews; Student Journals; Teacher Role; *Writing Across the Curriculum
IDENTIFIERS *Writing Thinking Relationship

ABSTRACT

A literature review examined the relationship between journal writing and thinking processes. Little was found in the way of actual research but much was located in the way of authoritative statements from practitioners of journal writing. The literature suggests that journal writing is beneficial in students' personal life, in the educational process as a whole, and, in particular, in the enhancement of thinking processes. There is considerable support for the notion that writing and thinking are interrelated processes. In undertaking journal writing in the classroom, educators suggest that teachers must be prepared to acknowledge and respect the rights of students to express their opinions freely. It appears to be helpful to establish certain guidelines for journal writing in the classroom. To encourage the development of a variety of thinking processes, it appears to be useful to assign specific modes of response such as summarizing, comparing, and interpreting. (Sixty-five references are attached.) (Author/RS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED327870

THE RELATIONSHIP BETWEEN JOURNAL WRITING IN EDUCATION AND THINKING PROCESSES:

What Educators Say About It

by

Martha E. Zacharias

1609 Hilliard Street East

Saskatoon, Saskatchewan

S7J 0G5

(306) 477-1785

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

M.E. Zacharias

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

A Review of the Literature

December, 1990

CS212639

ABSTRACT

In this literature review, the relationship between journal writing and thinking processes are examined. Little was found in the way of actual research, but much was located in the way of authoritative statements from practitioners of journal writing.

The literature suggests that journal writing is beneficial in one's personal life, in the educational process as a whole, and in particular, in the enhancement of thinking processes. Valuing journal writing in education presupposes an orientation to learning as being initiated by the learner in a personal connection with content, and an orientation to writing as important as a process more than as a product. There is considerable support for the notion that writing and thinking are interrelated processes. Journal writing is regarded by many educators as lending itself naturally to the development of all thinking operations identified by Raths et. al (1967).

In undertaking journal writing in the classroom, educators suggest that one must be prepared to acknowledge and respect the rights of students to express their opinions freely. It is essential to create a climate of trust and confidentiality in the classroom. It appears to be helpful to establish certain guidelines for journal writing in the classroom. It appears that in order to encourage the development of a variety of thinking processes, it is useful

to assign specific modes of response such as summarizing, comparing, and interpreting.

TABLE OF CONTENTS

	Page
INTRODUCTION	1
NEW EMPHASES IN EDUCATION	2
DEFINITIONS	4
THE RELATIONSHIP BETWEEN THINKING PROCESSES AND JOURNAL WRITING	6
A WORD OF CAUTION	19
CONCLUSION	20

INTRODUCTION

How can I know what I think until I see what I say?

Edward Morgan Forster

Was Edward Morgan Forster an oddity to suggest such a powerful relationship among the language processes of writing, thinking, speaking, and knowing? Or is there support for this notion among people who work with and teach the processes of languaging? Forster seems to suggest that knowledge is arrived at through an integration of all the senses in a very personal connection with the knowledge seeker. Forster uses the first person, and in doing so, he appears to root his statement in a process that he knew intimately from long experience -- the very personal process of journal writing. It is this connection of writing and thinking with the personal response, the "I" of journal writing, that is the focus of this literature review.

The purpose of this literature review is to examine what teachers report about their observations in the relationship between journal writing and thinking, and to review research in this area. Little was found in the way of actual research, but much was located in the way of authoritative statements from practitioners and teachers of the process of journal writing.

NEW EMPHASES IN EDUCATION

The current interest in journal writing and thinking skills is a reflection of the dramatic and fundamental changes in how learning and educating are conceived. In order to provide a perspective for this paper, it is necessary to discuss briefly several recent reconceptualizations in education.

Reconceptualiztions in Learning Theory

The value of both thinking skills and journal writing are based on reconceptualizations of how knowledge is generated, integrated, applied, and retained. The old notion of learning as being transmitted by the teacher through filling the empty head of the student is rejected. Knowledge is seen as being generated by the learner himself through an interactive, thinking and doing process with his environment (Self, 1985; Mayher & Lester, 1983).

Writing has been shown to be a tool for learning, (Wasson-Ellam, 1987 a&b; Weiner, 1986) rather than merely as an evaluative tool, as in examination questions. That is, writing has come to be valued as a process, as much and possibly more, than as a product.

Learning is currently conceptualized largely as thinking, (Jones, et al., 1987), and specific thinking processes have been found by research to be demonstrable and teachable and are therefore regarded as skills (Chance, 1986; Costa, 1985; and Raths et al., 1967).

New Interest in an Old Idea-Journal Writing Across the Curriculum

Russell (1986) charts the development of writing across the curriculum (sometimes WAC) in education. The idea of writing and learning as integrative processes that should be central to all education was advocated in 1913 by James Fleming Hosic. He referred to it mostly as 'co-operation' to teach writing, and his ideas sound amazingly similar to Fulwiler's journal writing across the curriculum ideas. Hosic's movement faded with the onset of World War I, but his ideas have endured and resurfaced in the writing across the curriculum movement of the past few decades.

The interest in using writing as a learning tool requires a "broadening of the notion of what school writing is" (Self, 1985, p. 22). That is, Self says that although essays and reports should still have a function in school, students need more opportunities to produce responsive writing that is relatively free from the constraints of editing and polishing (p. 22). Pradl and Mayher (1985) suggest that the value of writing extends far beyond the traditional forms and that the writing process can be a viewed as a fundamental support for student learning (p. 5).

Recent writings of Strong (1983), Fulwiler (1985), Hipple (1985), Pradl and Mayher (1985), Wasson-Ellam (1987 a&b), Carswell (1988), and Deckert (1988) exude enthusiasm and confidence in the process of journal writing as invaluable in education at all levels, from Kindergarten

(Hipple) to graduate curriculum classes (Carswell) to teacher's journals (Deckert).

The Thinking Skills Movement

In 1984 a poll (Chance, 1986, p.1) of teachers indicated that the area seen as the most important in a list of 25 educational goals was instruction in thinking. This interest in the teaching of thinking processes is described as a major new movement. Chance further says that there is a

> growing realization among educators that our society is in the midst of a profound cultural transformation, one that will produce a world in which high level thinking is a basic skill. (Chance, p.6).

Along with a strong conviction of the importance of thinking processes, the literature also emphasizes the urgency of finding efficacious methods of teaching and encouraging the development of these skills (Chance, 1986, p. 6; Costa, 1985,p. 1).

DEFINITIONS

Journal Writing

Journal writing in education generally refers to expressive, personal writing in the first person about ideas that the writer perceives to be important (Fulwiler, 1982). It is usually thought of as somewhere between a personal diary and a class notebook. The class notebook is a record of academic subjects that the writer wishes to study. The personal diary is a record of the private thought and

experience of the writer. Fulwiler further says that the journal can fall anywhere on the continuum between the diary and the class notebook. It can be broad in scope or narrow, focussing on response to one academic subject, or drawing connections from the whole of a writer's frame of reference (Fulwiler, 1982, p. 17). Many writers simply refer to this process as expressive writing, and sometimes as the writing of learning logs. Other names sometimes used for journals are writer's notebooks, commonplace books, or simply logs (Fulwiler, 1980), p. 17).

Another form of journal that is sometimes used, especially with younger children, is the "dialogue journal", in which the teacher responds in writing to each journal entry made by the student. Thus the dialogue journal initiates a personal relationship between student and teacher (Staton, 1988).

Thinking Processes

Presseisen (1985) defines thinking as "a cognitive process, a mental act by which knowledge is acquired" (p. 43). This process depends primarily on reasoning, but also on perception and intuition. Presseisen expands her definition to recognize that thinking processes "are related to other kinds of behaviour and require active involvement on the part of the thinker" (p. 43).

One of the most comprehensive works examining thinking skills and their applicability to the classroom appears to

be that of Raths, Jonas, Rothstein, and Wassermann, Teaching for Thinking: Theory and Application (1967). Raths et al. divide thinking processes or *operations*, as they call them, into comparing, summarizing, observing, classifying, interpreting, criticizing, looking for assumptions, imagining, collecting and organizing data, applying facts and principles, decision-making, coding, and designing projects and investigations. It is this work that forms the framework for the discussion in this paper of specific thinking skills and their relationship to journal writing.

Could journal writing be considered an efficacious method of teaching thinking skills? It is the intention of this paper to review the literature in the area of journal writing for the purpose of discovering what connections are seen to exist between the development of thinking skills and the process of journal writing.

THE RELATIONSHIP BETWEEN THINKING PROCESSES AND JOURNAL WRITING

The relationship among the languaging processes is explained by Emig (1983) as follows: the writing process connects the hand that is doing the writing, the eye that sees what is written, and the brain that is responsible for thinking, sorting out, and absorbing knowledge.

Writing stimulates thinking, and in thinking, one comes to formulate ideas, opinions, and new knowledge. Craig

(1983) says that when we write we often surprise ourselves with what we know (p. 375).

That the writing process is integral to learning and thinking, has been written about by many educators, among them Fulwiler (1982), Emig (1983), Strong (1983), Olson (1984), Wolfe and Pope (1985), Wasson-Ellam (1987 a&b), and many others. Emig (1983), discusses in detail the connections between writing and learning. She says that "writing through its inherent reinforcing cycle involving hand, eye, and brain, marks a uniquely powerful multi-representational mode for learning." (p. 126). She also asserts that writing is "markedly bispheral" (p. 126) and involves both the left and right side of the brain actively. Strong (1983) calls this full involvement in the writing process an integration of mind and body and "a means-perhaps the best means-to make knowledge personal, connected, accessible to self" (p. 36).

Niles (1985) states that composing or writing and understanding are interrelated process-oriented thinking skills (p. 62). That the writing process fosters critical and analytical thinking is also supported in a thesis by Walker (1988). Writing is a way of learning that is unique among the languaging processes in that it involves the brain more fully than talking, listening or reading (Emig, 1983). Olson (1985) shows how all the thinking levels in Bloom's taxonomy are integral to the process of composing or writing. Self (1985) says: "Students must acquire

knowledge, understanding, and wisdom through a personal and intense engagement with the subject" (p. 21). He states that writing provides a student with this kind of an involvment. (p. 21). Therefore, the writing process which involves the faculties of the mind as well as the hands so completely appears to be ideal as an efficacious method of learning thinking skills. The most effective writing to learn activity seems to be that which connects the individual personally to what he is to learn, that which encourages the integration of the individual's thoughts and feelings to merge with the process of learning (Fulwiler, 1980, p. 19; Pradl and Mayher, 1985; p. 6, Wasson-Ellam, 1987, p. 6).

Journal writing is regarded by many as the mode to connect personal learning with academic learning (Fulwiler, 1982, p. 30), and as Emig (1983) says: "Successful learning is also engaged, committed, personal learning."(p. 127). Polanyi (1962) states that knowledge is genuine only if it is somehow made personal and if the learner is able to construct personal meaning from it. Journal writing connects the "I" with the hand, eye, and brain, or as expressed in Jerome Bruner's categorizations, it integrates the enactive, iconic, and symbolic ways of responding to actuality (Emig, 1983, p. 126).

The following section examines the relationship between journal writing and thinking skills within the framework of thinking processes identified by Raths et al.

Comparing: looking for similarities and differences to obtain additional insights.

Journals can be used in the classroom to ask students to write a personal entry that compares aspects of their learning with their own experiences. Reed (1988) writes how she developed literature learning logs with students in which this was done regularly and how it resulted in the discovery of connections and insights for her students.

Knight (1990) describes a journal coding system she devised to assist student in developing an awareness of the types of responses they made in their journals. These included comparison statements, contrast statements, fact recall statements, cause/effect statements, analogy statements, evaluative statements and others.

Summarizing: the ability to restate the gist of a piece of work.

In the research of Wasson-Ellam (1987b), grade one students employed journal writing to generalize about experiences. Fulwiler (1982) suggests that classes can be ended with a summarizing journal write in order to encourage students to pull together what has been presented that day. He says that this type of synthesizing assignment forces the loose thoughts that have emerged from the lesson into a tighter clearer form (p.19).

Fulwiler relates the story of a Michigan Tech metallurgy professor who uses journal writing in numerous ways in his class. One part of the journal assignment

requests students to write a class summary after each day's lecture (1982, p. 23).

Ending a class with a summarizing journal write forces loose thoughts to come together and generates tighter thinking, according to Fulwiler (1982, p. 19). This type of summary can serve two purposes, he says: 1) What did you learn in here today--one thing--anything? or 2) What questions are still unanswered? (p. 19). Fulwiler suggests that these types of synthesizing assignments often help students write their way to an understanding of issues presented.

Pradl and Mayher (1985) suggest a "learning log" in which students spend the last five minutes of every class summarizing and recording what has been achieved that day in class and posing questions that remain unanswered (p. 5).

Another method presented by Fulwiler for the development of this thinking skill is interrupting the class with a journal write. The class can be asked to restate an argument presented by the instructor or by several people, in their own words and this journal write can form the basis for a discussion (p. 21).

That journals provide an important tool for summarizing is also apparent in the work of Knight (1990) and Barone (1990). Knight's journal coding system, previously mentioned, encouraged students to identify summarizing statements in their work. Barone describes journal writing in response to literature with Grade Two students and

observes that even at such a young age, students begin to develop summarizing in their journals.

Observing: obtaining sense evidence for greater and more accurate understanding.

Fulwiler (1982) tells the story of a geography professor who has used journals successfully for ten years to develop and sharpen powers of observation in his students. This journal, which focuses on observational data, is then used to form an integrative final assignment (p. 23).

Fulwiler himself asks students to make progress reports in their journals about what they believe themselves to be learning (p. 23).

Professional journals can also be the place for recording observations regarding professional growth. In one such journal goals were set and regular observations made regarding progress towards the goals (Zacharias, 1989). This was found to be very successful in staying goal-oriented and consequently in facilitating personal growth.

Classifying: sorting out and grouping to develop order among things.

Niles (1985) suggests that journals are powerful teaching-learning tools that provide students with opportunities for personal growth as well as language and cognitive development. The development of language is regarded as the principle means of classifying and organizing experiences and ideas (p. 61).

Blatt and Rosen (1984) affirm the value of journal writing in response to literature particularly for sorting out ideas and feelings (p. 12).

The developing of classification skills is also referred in Knight's journal coding. Students are encouraged to learn to identify this skill in their journals.

Interpreting: finding and assigning meaning for increased understanding.

Duke (1986) maintains that for students to learn to interpret and to evaluate is impossible without first allowing them to express their own thoughts and to make mistakes (p. 55). She says that students must be encouraged to write in journals what they understand about their world before they are ready to advance their understanding.

According to Wasson-Ellam (1987b), "One must write about an experience in order to understand one's perception" (p. 5). Her research with Grade One students led her to conclude that "writing brings order, understanding and meaning to one's thoughts and experiences."(p. 12). With reference to journal writing in a graduate class in curriculum, Carswell (1988) writes that the process is important in "understanding and reformulating our conceptions" (p. 112).

Fulwiler (1982) speaks of students writing their way to an understanding of problems by "forcing their confusion into sentences" (p. 21). Fulwiler also gives the example a

high school Mathematics teacher who reports that journal writing assists her students to write their way to an understanding of problems they encounter. She describes their experiences as a way of looking inside themselves to find out what they could do to solve their mathematical problems (p. 21). Fulwiler regards the journal writing process itself as a confusion-eliminating, meaning-finding device.

Wolfe and Pope (1985) suggest that students should be encouraged to write, paraphrase, and interpret what they read in order to deepen their understandings. They suggest that writing about a particular passage is more effective in comprehending and interpreting than reading and re-reading it (p. 13).

Raths (1987) discusses a method he calls debriefing in which the primary intent is to develop a clear sense of the meaning of specific classwork and concepts. This process uses the thinking skills of comparing, organizing, classifying, evaluating, summarizing, and analyzing (p. 27). One of the ways he suggests that this can take place is through writing logs or diaries.

That personal writing is a natural a way to think, organize, and construct meanings is a position supported by Bruner (1988). He says that encouraging children to respond autobiographically enhances their development as critical thinkers, writers and learners (p. 574).

Barone (1990) follows the path one of her Grade Two students takes in the construction of meaning. She descrdibes how through the process of writing in both dialogue journals and in double entry journals, "Eldon" developed his meaning.

Criticizing and looking for assumptions: developing sound criteria and evaluating on the basis of these, and scrutinizing in a rational manner that which appears to be taken for granted.

Journal writing is seen in the literature as a tool that encourages critical thought and self-evaluation (Fulwiler, 1982, p. 25). Wolfe and Pope advocate the use of writing that encourages students to "take stock of themselves and their learning experiences" (p. 16). The intent here is for the students to learn to evaluate their own experience and performance (p. 16).

That writing is a "tool by which critical and creative thinking abilities are acquired, developed, and honed" (p. 11) is a position taken by Wolfe and Pope (1985). They suggest that when students are "really thinking" they use their own words and not the words of the teacher or anyone else's (p. 11).

An interesting approach to the development of critical thinking skills described by Santa, Dailey, and Nelson (1985). These writers describe an intructional sequence known as *free-response and opinion-proof*. In this method, students are encouraged to respond verbally to a literary or

content selection. Students then begin the writing component known as opinion-proof in which they examine their free responses and attempt to substantiate them with evidence. An opinion statement that can be proven by evidence from the selection forms the main idea of the first paragraph of writing and a critical essay is born.

Imagining: encouraging the mind to travel, to create freely, to visualize something in detail.

Brewster (1988) suggests that students assume a point of view other than their own in responding in writing to a specific issue or unit of study. This demands that the students imagine themselves to be someone else, to try to reach into the mind and thoughts of another person (p. 57).

Fulwiler (1985) reports how his daughter's teacher uses journal writing in grade three specifically to stimulate the imagination. In one case the teacher asked the students to write all the words that came to their mind--a free-association type of exercise. This assignment enabled students to write in detail from any of the groups of words that emerged (p. 56-57). Fulwiler suggests that exercises such as this if practiced often, help children to form mental images into concrete language (p. 58).

Collecting and organizing data: locating, selecting, and assembling information into a comprehensible pattern.

The journal has been shown to be a particularly useful place in which to collect data and to draw conclusions as in the example above of the geography professor who assigns

observational data journals to his students (Fulwiler, 1982, p.23). Fulwiler also suggests the use of lab journals for data collection in science or social studies to record responses to experiments (p. 22).

Deckert (1988) recommends that teachers keep journals and one of the aspects of journal writing that he has found useful is the recording of the types of grammatical, punctuational, or spelling responses that specific assignments elicited (p. 49). This enables him to anticipate difficulties within these areas and to teach correct usages in advance (p. 49). Deckert also compiles statistics to reveal common writing problems, including the most frequently misspelled words, and he says that "isolating these problems allowed me to teach to these specifics and to direct an effective proofreading procedure which the students found beneficial" (p. 50).

Hypothesizing: proposing solutions or explanations to problems

Research by Wasson-Ellam (1987 a; 1987b) with a grade one class in Mathematics indicates that students used their math journals very effectively for making guesses (hypothesizing) . At times they were given tasks to encourage this process. For example, the students might be asked to estimate the circumference of a pumpkin by various methods (1987b, p. 18). In their journals the students reflected on their hypothesizing.

Among the responses Knight (1990) asks her students to develop an awareness of and to code in their journals is hypothesizing.

Applying facts and principle in new situations: tranferring learning from prior knowledge and experience to new experiences.

An example of how an algebra class uses journal writing to help students connect what they are learning with other subjects and with their own experiences, is given by Pradl and Mayher (1985). One of the purposes of the algebra journals is to have students use their own words to make connections between new material and previously learned material (p. 5).

Wolfe and Pope (1985) suggest writing tasks that ask students to reflect on the utility of what they have learned in class; in this way, teachers also come to understand new reasons for why they teach what they teach (p. 14).

Decision making: making informed choices and accepting responsibility for those choices.

Journal writing can be used in many ways to aid students in the development of decision making skills. Fulwiler (1985) discusses how the presentation of a controversial issue in class concluded with a journal writing assignmemt in which some students made choices and decisions regarding their own stance on the issue. Fulwiler suggests that in writing about these positions, students

commit themselves firmly and become increasingly autonomous thinkers (p. 58).

A form of decision making that the journal is frequently used for is that of setting goals. These goals can relate to any area of one's personal life or education and the journal brings together many thinking processes to help the student stand by a decision (Wolfe and Pope, 1985, p. 12).

Coding: systematically editing writings or speeches of themselves and other.

Journal writings that students are willing to share can be the focus of editing practice. Santa et al. (1985) employ peer editing in their free response and opinion-proof activities.

Heath (1988) asks her students to choose one journal entry per week to read to the class. She says that students automatically edit the work that they have to share with their audience (p. 59).

The work of Knight is a comprehensive coding system referred to several times in this literature review. She employs a coding system that teaches students to analyze their own work into responses that fall into the categories of recall, comparison, contrast, cause/effect, analogy, classification, evaluation and others. Her work is a case in point that the thinking skill of coding can be an integral part of journal writing.

A WORD OF CAUTION

In the course of this literature review several cautionary observations regarding the use of journal writing in the schools were noted by a number of writers. Undertaking journal writing in the classroom is not without potential pitfalls. Duke (1986) has found journal writing to be risky. Students learn to express themselves so freely in their writing that this may prove very threatening to people who are not prepared to defend students' rights to self-expression. Duke relates the story of a student who began writing uncomplimentary expressions about the school administration the moment he saw the principal walk into the class. When the principal walked in, he happened to see his name in a journal entry. He picked it up, read it, and furiously forbade all journal writing from then on (p. 53).

Journal writing is not to be seen as a panacea in the teaching of writing. Fox and Suhor (1986) state that research by Hillocks (1986) indicates that although free writing (writing which is not graded and for which topics are not assigned) can be useful for apprehensive writers, writers who are already fluid *may not* benefit from free writing. Fox and Suhor conclude that "the use of free writing alone will not automatically produce better writers" (p. 35), but that there are times when it can be used as a tool to develop writing skills.

That writing for learning tasks should not be seen as mere fillers for unused or left over class time is an

observation made by Wolfe and Pope (1985, p. 17). They also say that teachers must be careful not to treat these tasks as isolated assignments (p. 17).

The journal is not necessarily the one assignment where a teacher and a student can toss aside all rules. Heath (1988) makes the case for setting guidelines for personal journal writing in the classroom. She suggests that students keep away from writing about matters that she is required by law to report (p. 59). Heath also finds it helpful to assign topics for the students to reflect on in a journal entry (p. 58). To encourage the students to write regularly and systematically, Heath insists that the journals never go home. Some students, she found, would not write entries until the journals were about to be handed in. This would force them to write a rush of entries all at once, sabotaging the reflective value of the process (p.59).

Many writers, among them Heath, (1988, p. 58), Duke, (1986, p.55), and Carroll (1972, p. 61) agree that it is of utmost importance to establish a climate of confidentiality and trust in the classroom in order for journal writing to work. Students cannot learn to express themselves freely unless such a climate is established.

CONCLUSION

According to the literature, journal writing is generally regarded as beneficial in one's personal life, in the educational process as a whole, and in particular, as

this study indicates, in the enhancement of thinking skills. Valuing journals in the educative process presupposes a reconceptualization of the learning process as initiated by the learner in a personal connection with the content, and a reconceptualization of the purposes of writing. There is considerable support for the notion that writing and thinking are interrelated processes. Journal writing appears to lend itself easily and naturally to developing all the major thinking operations categorized by Raths et al. (1967).

In undertaking journal writing in the classroom, one must be prepared to acknowledge and respect the rights of students to express their opinions. For journal writing to be effective, it is essential to create a climate of trust and confidentiality in the classroom. It is also apparent from the literature that journal writing does not necessarily work for everyone, but that it seems to be an effective learning tool for most people. It appears to be helpful to establish certain guidelines and rules in the use of journal writing in the classroom. It seems that in order to encourage the development of a variety of thinking skills, it is [redacted] useful to assign specific modes of response at times such as summarizing, comparing, and interpreting.

REFERENCES

Barone, D. (1990). The written responses of young children: Beyond comprehension to story understanding. The New Advocate, 3, (1), 49-56.

Berkenkotter, C. (1982). Writing and problem solving. In T. Fulwiler & A. Young (Eds.), Language connections: writing and reading across the curriculum. (p.33-44). Urbana: National Council of Teachers of English.

Blatt, G., & Rosen, L. (1984). The writing response to literature. Journal of Reading, 28, (1), 8-12.

Brewster, M. (1988). Ten ways to revive tired learning logs. English Journal, 77, (2), 57.

Britton, J. (1983). A quiet form of research. English Journal, 72, (4), 89-92.

Bruner, J. (1988). Research currents: Life as narrative. Language Arts, 65, (6), 574-583.

Carroll, J. (1972). Journal-making: The written word is not dead. Media and Methods, 9, (3), 61-63.

Carswell, R. (1988). Journals in a graduate curriculum course. English Quarterly, 21, (2), 104-114.

Chance, P. (1986). Thinking in the classroom. A survey of programs. New York: Teachers College Press.

Craig, Sister Therese. (1983). Self-discovery through writing personal journals. Language Arts, 60, (3), 373-379.

Deckert, A. (1988). Keeping a teacher's writing journal. English Journal, 77, (2), 48-50.

Dickerson, M. (1988). A voice of one's own: Creating identities. St. Louis: ERIC.

Duke, L. (1986). Teaching the accepted methods of your profession: The teacher as risk taker. English Journal, 75, (5), 53-55.

Emig, J. (1983). The web of meaning: Essays on writing, teaching, learning, and thinking. D. Goswami & M. Butler (Eds.) New Jersey: Boynton/Cook.

Fox, D., & Suhor, C. (1986). ERIC/RCS Report: Limitations of free writing. English Journal, 75, (8), 34-36.

Fulwiler, T. (1980). Journals across the disciplines. English Journal, 69, (9), 14-19.

Fulwiler, T. (1982). The personal connection: Journal writing across the curriculum. In T. Fulwiler & A. Young (Eds.), Language connections: writing and reading across the curriculum. (p.15-32). Urbana: National Council of Teachers of English.

Fulwiler, T. (1985). Writing and learning, grade three. Language Arts, 62, (1), 55-59.

Giroux, H. (1979). Teaching content and thinking through writing. Social Education, March, 190-193.

Glatthorn, A., & Baron, J. (1985). The good thinker. In A. L. Costa (Ed.), Developing minds: A resource book for teaching thinking. Roseville: ASCD.

Heath, G. (1988). Journals in a classroom: One teacher's trials and errors. English Journal, 77, (2), 58-60.

Hummer, C.C. (1988). Logging-I wish you would: The family journal. English Journal, 77, (2), 51.

Hipple, M. (1985). Journal writing in kindergarten. Language Arts, 62, (3), 255-261.

Jensen, M. (1983). Studying intrapersonal communication through memoirs and journals. Philadelphia: ERIC.

Jones, B., Palinscar, A., Ogle, D., & Carr, G. (1987). Strategic teaching and learning: Cognitive instruction in the content areas. Alexandria: ASCD.

Knight J. (1990). Coding journal entries. Journal of Reading, 34, (1), 42-47.

Lund, D. (1986). Reflecting on the writing process: Teaching and researching composition. Highway One, 9, (3), 6-12.

Mayher, J., & Lester, N. (1983). Putting learning first in writing to learn. Language Arts, 60, (6), 717-721.

Niles, A. (1985). Journals are worth the time. Virginia English Bulletin, 35, (1), 60-64.

Olson, C. (1984). Fostering critical thinking skills through writing. Educational Leadership, 42, (3), 28-39.

Polanyi, M. (1962). Personal knowledge: Toward a post-critical philosophy. Chicago: University of Chicago.

Pradl, G., & Mayher, J. (1985). Reinvigorating learning through writing. Educational Leadership, 42, (5), 4-6.

Presseisen, B. (1985). Thinking skills: Means, models, materials. In A. L. Costa (Ed.), Developing minds: A resource book for teaching thinking. Roseville: ASCD.

Rainer, T. (1978). The new diary: How to use a journal for self-guidance and expanded creativity. LA: J.P.Tarcher.

Raths, J. (1987). Enhancing understanding through debriefing. Educational Leadership, 45, (2), 24-27.

Raths, L., Jonas, A., Rothstein, A., & Wasserman, S. (1967). Teaching for Thinking: Theory and Application. Columbus: Charles E. Merrill.

Reed, S. (1988). Logs-keeping an open mind. English Journal, 77, (2), 52-56.

Russell, D. (1986). Writing across the curriculum in 1913: James Fleming Hosic on "co-operation". English Journal, 75, (5), 34-37.

Sanders, A. (1985). Learning logs: A communication strategy for all subject areas. Educational Leadership, 42, (5), 7-8.

Santa, C., Dailey, S., & Nelson, M. (1985). Free-response and opinion-proof: A reading and writing strategy for middle grade and secondary teachers. Journal of Reading, 28, (4), 346-352.

Self, W. (1985). A broadened perception: Writing and learning. Virginia English Bulletin, 35, (1), 19-24.

Shannon, D. (1985). Use of top-level structure in expository text: An open letter to a high school teacher. Journal of Reading, 28, (5), 426-431.

Staton, J. (1988). ERIC/RCS Report: Dialogue journals. Language Arts, 65, (2), 8-11.

Stover, K. (1988). In defense of freewriting. English Journal, 77, (2), 61-62.

Strong, W. (1983). Writing: A means to meaning or how I got from the Tastee Donut Shop to the Inn of the Seventh Mountain. English Journal, 72, (2), 34-37.

Tchudi, S. (1986). The hidden agendas in writing across the curriculum. English Journal, 75, (7), 22-25.

Van Nostrand, A. (1979). Writing and the generation of knowledge. Social Education, March, 178-180.

Walker, A. (1988). Writing-across-the-curriculum: The second decade. English Quarterly, 21, (2), 93-103.

Wasson-Ellam, L. (1987a) Writing as a tool for learning: Math journals in grade one. Louisville: ERIC.

Wasson-Ellam, L. (1987b). Writing across the curriculum. Canadian Journal of English Language Arts, 11, (3), 4-25.

Weiner, W. (1986). When the process of writing becomes a tool for learning. English Journal, 75, (6), 73-75.

Wolfe, D., & Pope, C. (1985). Developing thinking processes: Ten writing for learning tasks throughout the curriculum. Virginia English Bulletin, 35, (1), 11-17.

Zacharias, M. (1989). Faculty advisor professional journal. Unpublished manuscript.